

Remarks

The Office Action mailed June 28, 2005 and the Advisory Action mailed September 20, 2005 have been carefully reviewed and the foregoing amendment has been made in consequence thereof.

In accordance with 37 C.F.R. 1.136(a), a one-month extension of time is submitted herewith to extend the due date of the response to the final Office Action dated June 28, 2005 for the above-identified patent application from September 28, 2005 through and including October 28, 2005. In accordance with 37 C.F.R. 1.17(a)(1), authorization to charge a deposit account in the amount of \$120.00 to cover this extension of time request also is submitted herewith.

Claims 1-22 are now pending in this application. Claims 1-20 are rejected. Claims 1, 7, and 14 have been amended. Claims 21 and 22 have been newly added. No new matter has been added. A fee calculation sheet is submitted herewith for the newly added claims.

The rejection of Claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by Dobbins et al. (U.S. Patent No. 5,790,546) is respectfully traversed.

Dobbins et al. describe a secure fast packet switching (SFPS) network including a plurality of network infrastructures that are built up around a core switching fabric (column 3, lines 59-60). The switching fabric provides a plurality of physical paths or routes that allow users to send information to each other (column 3, lines 60-61). A networking chassis (30) is adapted to incorporate the SFPS technology (column 13, lines 34-35). The chassis is a mechanical enclosure (31) which is used to house a plurality of networking modules (32), which may include repeater modules, bridge modules, router modules, and terminal servers (column 13, lines 36-40). A module embodies an SFPS switch (40) which is linked to the module's host processor (41) by a pair of port interface links (42) for transfer of data (column 13, lines 55-59).

Claim 1 recites a method for forming a network including a plurality of communication devices, a wire network for allowing a plurality of communication

transmissions between the communications devices, and at least one connectivity device connected to the wire network, the method comprising the steps of “utilizing the connectivity device to perform a repeater function including regenerating a communication signal such that the distance between the communications device is extended; utilizing the connectivity device to perform a routing function including routing communication transmissions by the communications devices through the wire network; and communicating, by a central processing unit located within the connectivity device, with a network hub device located within the connectivity device and a network switch device located within the connectivity device, wherein the network hub device performs a hub function including interconnecting the communication devices by bringing segments of the wire network together, and the network switch device performs a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network; and integrating, within the connectivity device, a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Dobbins et al. do not describe or suggest a method for forming a network as recited in Claim 1. Specifically, Dobbins et al. do not describe or suggest integrating, within the connectivity device, a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Dobbins et al. describe providing, by a switching fabric, a plurality of physical paths or routes that allow users to send information to each other. Dobbins et al. further describe housing, within a mechanical enclosure, a plurality of networking modules, which may include repeater modules, bridge modules, router modules, and terminal servers. Dobbins et al. also describe embodying, within a module, a switch which is linked to the module's host processor by a pair of port interface links for transfer of data. Accordingly, Dobbins et al. do

not describe or suggest integrating, within the connectivity device, a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 1 is submitted to be patentable over Dobbins et al.

Claim 2-6 depend from independent Claim 1. When the recitations of Claims 2-6 are considered in combination with the recitations of Claim 1, Applicants submit that Claims 2-6 likewise are patentable over Dobbins et al.

Claim 7 recites a network system comprising “a plurality of communications devices configured to communicate with each other; a wire network configured to interconnect said communications devices and allow a plurality of communication transmissions between said communication devices; a network connectivity device connected to said wire network, said connectivity device configured to: perform a repeater function including amplifying communication transmissions such that the distance between said communications device is extended; and perform a routing function including routing communication transmissions through said wire network; and a central processing unit located within said network connectivity device and configured to communicate with a network hub device located within said network connectivity device and a network switch device located within said network connectivity device, wherein said network hub device configured to perform a hub function including interconnecting said communication devices by bringing segments of said wire network together, said network switch device configured to perform a switching function including reducing communication collisions by providing communication transmissions from said communications devices with independent paths through said wire network, and said connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Dobbins et al. do not describe or suggest a network system as recited in Claim 7. Specifically, Dobbins et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Dobbins et al. a switching fabric that provides a plurality of physical paths or routes that allow users to send information to each other. Dobbins et al. further describe a mechanical enclosure that houses a plurality of networking modules, which may include repeater modules, bridge modules, router modules, and terminal servers. Dobbins et al. also describe a module that embodies a switch, which is linked to the module's host processor by a pair of port interface links for transfer of data. Accordingly, Dobbins et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 7 is submitted to be patentable over Dobbins et al.

Claim 8-13 depend from independent Claim 7. When the recitations of Claims 8-13 are considered in combination with the recitations of Claim 7, Applicants submit that Claims 8-13 likewise are patentable over Dobbins et al.

Claim 14 recites a network connectivity device comprising a central processing unit connected to a electronic storage device, a hub module, a switch module, a repeater module and a router module, said connectivity device connected to a wire network interconnecting a plurality of communication devices, said connectivity device configured to-utilize said router module to perform a routing function including routing communication transmissions through the wire network, wherein said connectivity device includes a central processing unit configured to communicate with said hub module located within said connectivity device and said switch module located within said connectivity device, said repeater module

configured to perform a repeater function including amplifying communication transmissions to extend a distance between the communications devices, said hub module configured to perform a hub function including bringing segments of the wire network together, and said switch module configured to perform a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network, and said connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Dobbins et al. do not describe or suggest a network connectivity device as recited in Claim 14. Specifically, Dobbins et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Dobbins et al. a switching fabric that provides a plurality of physical paths or routes that allow users to send information to each other. Dobbins et al. further describe a mechanical enclosure that houses a plurality of networking modules, which may include repeater modules, bridge modules, router modules, and terminal servers. Dobbins et al. also describe a module that embodies a switch, which is linked to the module's host processor by a pair of port interface links for transfer of data. Accordingly, Dobbins et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 14 is submitted to be patentable over Dobbins et al.

Claims 15-20 depend from independent Claim 14. When the recitations of Claims 15-20 are considered in combination with the recitations of Claim 14, Applicants submit that dependent Claims 15-20 likewise are patentable over Dobbins et al.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-20 be withdrawn.

The rejection of Claims 1, 7, and 14 under 35 U.S.C. § 102(b) as being unpatentable over Picazzo, Jr. et al. (U.S. Patent No. 6,006,275) is respectfully traversed.

Picazzo, Jr. et al. describe a system including a plurality of hubs, which are also known as repeaters (column 1, lines 57-58). The hubs have multiple connections to a physical media called ports (column 1, lines 57-58). The purpose of a hub is to receive data packets from one port and repeat these packets (column 1, lines 58-59). The system includes a plurality of bridges/routers, which are devices which aid in forwarding data packets from one network segment or one network to another (column 2, lines 4-7, column 7, line 5). A repeater circuitry is included in the hub (column 6, line 66). A CPU is coupled to the hub and the bridge (Figure 2).

Claim 1 recites a method for forming a network including a plurality of communication devices, a wire network for allowing a plurality of communication transmissions between the communications devices, and at least one connectivity device connected to the wire network, the method comprising the steps of “utilizing the connectivity device to perform a repeater function including regenerating a communication signal such that the distance between the communications device is extended; utilizing the connectivity device to perform a routing function including routing communication transmissions by the communications devices through the wire network; and communicating, by a central processing unit located within the connectivity device, with a network hub device located within the connectivity device and a network switch device located within the connectivity device, wherein the network hub device performs a hub function including interconnecting the communication devices by bringing segments of the wire network together, and the

network switch device performs a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network; and integrating, within the connectivity device, a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Picazzo, Jr. et al. do not describe or suggest a method for forming a network as recited in Claim 1. Specifically, Picazzo, Jr. et al. do not describe or suggest integrating, within the connectivity device, a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Picazzo, Jr. et al. describe including a plurality of hubs, also known as repeaters within a system, including a plurality of bridges/routers within the system, including a repeater circuitry in the hub, and coupling a CPU to the hub and the bridge. Accordingly, Picazzo, Jr. et al. do not describe or suggest integrating, within the connectivity device, a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 1 is submitted to be patentable over Picazzo, Jr. et al.

Claim 7 recites a network system comprising “a plurality of communications devices configured to communicate with each other; a wire network configured to interconnect said communications devices and allow a plurality of communication transmissions between said communication devices; a network connectivity device connected to said wire network, said connectivity device configured to: perform a repeater function including amplifying communication transmissions such that the distance between said communications device is extended; and perform a routing

function including routing communication transmissions through said wire network; and a central processing unit located within said network connectivity device and configured to communicate with a network hub device located within said network connectivity device and a network switch device located within said network connectivity device, wherein said network hub device configured to perform a hub function including interconnecting said communication devices by bringing segments of said wire network together, said network switch device configured to perform a switching function including reducing communication collisions by providing communication transmissions from said communications devices with independent paths through said wire network, and said connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Picazzo, Jr. et al. do not describe or suggest a network system as recited in Claim 7. Specifically, Picazzo, Jr. et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Picazzo, Jr. et al. describe a plurality of hubs, also known as repeaters. Picazzo, Jr. et al further describe a plurality of bridges/routers, a repeater circuitry within the hub, and a CPU coupled to the hub and the bridge. Accordingly, Picazzo, Jr. et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 7 is submitted to be patentable over Picazzo, Jr. et al.

Claim 14 recites a network connectivity device comprising a central processing unit connected to a electronic storage device, a hub module, a switch module, a repeater module and a router module, said connectivity device connected to a wire network interconnecting a plurality of communication devices, said connectivity device configured to-utilize said router module to perform a routing function including routing communication transmissions through the wire network, wherein said connectivity device includes a central processing unit configured to communicate with said hub module located within said connectivity device and said switch module located within said connectivity device, said repeater module configured to perform a repeater function including amplifying communication transmissions to extend a distance between the communications devices, said hub module configured to perform a hub function including bringing segments of the wire network together, and said switch module configured to perform a switching function including reducing communication collisions by providing communication transmissions from the communications devices with independent paths through the wire network, and said connectivity device configured to integrate a first function set and a second function set, wherein the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function.”

Picazzo, Jr. et al. do not describe or suggest a network connectivity device as recited in Claim 14. Specifically, Picazzo, Jr. et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. Rather, Picazzo, Jr. et al. describe a plurality of hubs, also known as repeaters. Picazzo, Jr. et al further describe a plurality of bridges/routers, a repeater circuitry within the hub, and a CPU coupled to the hub and the bridge. Accordingly, Picazzo, Jr. et al. do not describe or suggest the connectivity device configured to integrate a first function set and a second function set, where the first function set includes a function other than the hub function, the

switching function, the routing function, and the repeater function, and the second function set includes at least one of the hub function, the switching function, the routing function, and the repeater function. For the reasons set forth above, Claim 14 is submitted to be patentable over Picazzo, Jr. et al.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1, 7, and 14 be withdrawn.

Newly added Claims 21 and 22 depends from independent Claim 1, which is submitted to be in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claims 21 and 22 are also patentable over the cited art.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



Michael Tersillo
Registration No. 42,180
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070